WE CLAIM

1. Video face detection apparatus in which a test image from a video sequence is compared with an image property model derived from image properties of a region detected to contain a face in a preceding image in said video sequence; said apparatus comprising:

(i) a selector to select a predetermined proportion of pixels in said region detected to contain a face in said preceding image which most closely match said image property model derived in respect of that region, thereby deriving a pixel mask;

(ii) a comparator to compare pixels in said test image defined by said pixel mask with said image property model, said mask being applied at more than one image position within said test image; a face being detected in said test image at a mask position corresponding to a lowest average difference between said image property model and pixels defined by said mask at that position.

2. Apparatus according to claim 1, in which said image property model is a colour model.

3. Apparatus according to claim 2, in which said colour model is a Gaussian model of colour distribution.

4. Apparatus according to claim 2, in which said colour model represents a colour distribution in at least a part of at least one image of said video sequence.

5. Apparatus according to claim 1, in which said mask is applied to said test image at positions within a test region surrounding the image position of said detected face in said preceding image.

6. Apparatus according to claim 5, in which said test region is a rectangular region.

7. Apparatus according to claim 1, in which said predetermined proportion is 50% of said pixels.

8. Video conferencing apparatus comprising apparatus according to claim 1.

9. Surveillance apparatus comprising apparatus according to claim 1.

10. A video face detection method in which a test image from a video sequence is compared with an image property model derived from image properties of a region detected to contain a face in a preceding image in said video sequence; said method comprising the steps of:

(i) selecting a predetermined proportion of pixels in said region detected to contain said face in said preceding image which most closely match said image property model derived in respect of that region, thereby deriving a pixel mask; and

(ii) comparing pixels in said test image defined by said pixel mask with said image property model, said mask being applied at more than one image position within said test image; said face being detected in said test image at a mask position corresponding to a lowest average difference between said image property model and pixels defined by said mask at that position.

11. Computer software having program code for carrying out a method according to claim 10.

12. A providing medium for providing program code according to claim 11.

13. A medium according to claim 12, said medium being a storage medium.

14. A medium according to claim 14, said medium being a transmission medium.